

B4

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-313383

(43)Date of publication of application : 25.10.2002

(51)Int.Cl.

H01M 8/04

B60H 1/22

B60H 1/32

B60L 11/18

H01M 8/00

(21)Application number : 2001-113073

(71)Applicant : DENSO CORP

(22)Date of filing : 11.04.2001

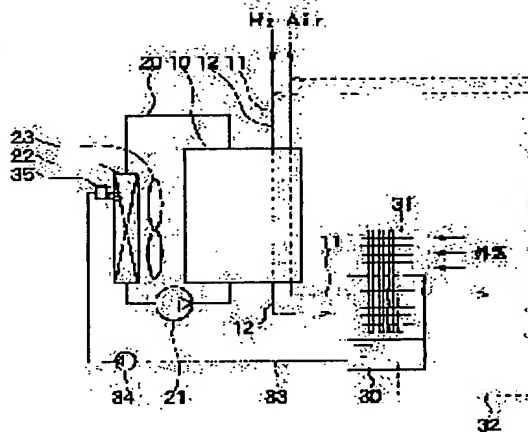
(72)Inventor : SAKAGAMI YUICHI  
OCHI KAZUMICHI  
HOTTA NAOTO  
SASAKI HIROKUNI

## (54) FUEL CELL SYSTEM

(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a fuel cell system for collecting a water produced in a fuel cell to be drained to the outside together with an exhaust gas, which is capable of improving the efficiency of collecting the water and producing an increase in the quantity of water for use in not only humidifying supplied air or hydrogen but also other applications including cooling.

**SOLUTION:** The fuel cell system comprises the fuel cell 10 for chemically reacting hydrogen with oxygen to generate electric energy and produce a water and gas/liquid separators 30, 36, 38 for introducing an exhaust gas exhausted from the fuel cell 10 in a water containing state and collecting the water from the exhaust gas, wherein cooling means 31, 37, 45 are provided in the gas/liquid separators 30, 36, 38 for cooling the water contained in the exhaust gas. The used cooling means is a heat pipe 31 for heat exchange with an outside air to cool the water, a fin 37 or a heat exchanger 45 for heat exchange with a low temperature cooling medium in a refrigerating cycle device to cool the water.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

BEST AVAILABLE COPY

[Date of registration]

[Number of appeal against examiner's decision  
of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

BEST AVAILABLE COPY